

### R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

### IN THE SPECIFICATION

The specification has been amended to update references to other applications. As such, no new matter has been introduced.

### SUPPORT FOR CLAIM AMENDMENTS

Support for new claims 24-31 can be found in the drawings as originally filed, for example, on FIGS. 2-6, and in the specification as originally filed, for example, on page 5, line 25 through page 6, line 7, on page 6, line 25 through page 7, line 24, on page 8, line 16 through page 9, line 3, and on page 11, line 24 through page 12, line 5. As such, no new matter has been introduced.

### CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claims 1, 3, 4, 6, 7, 9 and 19 under 35 U.S.C. §102(b) as being anticipated by Aoyama et al. (U.S. Patent No. 5,694,246; hereinafter Aoyama '246) is respectfully traversed and should be withdrawn.

The rejection of claims 1, 2, 5, 9 and 10 under 35 U.S.C. §102(b) as being anticipated by Guerra (U.S. Patent No. 5,910,940) is respectfully traversed and should be withdrawn.

Aoyama '246 is directed to a method of manufacturing a lens array (Title of Aoyama '246). Guerra is directed to a storage medium having a layer of micro-optical lenses, each lens generating an evanescent field (Title of Guerra).

In contrast to Aoyama '246 and Guerra, the presently pending claim 1 provides a method of making a stamper or stamper ancestor for fabricating an optical disk comprising steps of (i) forming a substrate having a corrugated upper surface profile and (ii) depositing a layer of material onto the upper surface so as to form a combined substrate and layer structure having an upper surface profile comprising an adjacent series of structures having a substantially hemi-cylindrical contour. Claim 9 includes similar limitations. Claim 19 provides a method of making an optical data storage medium comprising steps of (i) forming one or more convex substantially hemicylindrical structures with a deposition process characterized by substantially uniform growth on a template substrate, (ii) serially replicating the structures to form a stamper having one or more convex substantially hemicylindrical structures, (iii) molding a plastic blank using the stamper as part of a mold assembly to form a plastic substrate having one or more concave grooves with a substantially hemicylindrical contour and

(iv) filling the grooves with a dielectric material so as to form convex lenses when viewed from the surface of the plastic blank opposite from the grooved side.

With respect to claims 1 and 9, Aoyama '246 does not disclose or suggest each and every element of the presently claimed invention, arranged as in the present claims. Specifically, with regard to claims 1 and 9, Aoyama '246 does not appear to disclose or suggest forming a substrate having a corrugated upper surface profile, as presently claimed. In particular, Aoyama '246 appears to be silent regarding a corrugated upper surface profile, as presently claimed. Furthermore, the portion of Aoyama '246 cited in the Office Action (column 3, line 11 through column 5, line 3) are directed to FIGS. 1a-1i of Aoyama '246 in which a substrate 10 is shown to have a smooth upper surface profile rather than a corrugated upper surface profile, as presently claimed.

Since Aoyama '246 is silent regarding a corrugated upper surface profile, as presently claimed, and FIGS. 1a-1i and column 3, line 11 through column 5, line 3 of Aoyama '246 describe a substrate 10 having a smooth upper surface profile, it follows that Aoyama '246 does not disclose or suggest forming a substrate having a corrugated upper surface profile, as presently claimed. Therefore, the Office Action fails to meet the Office's burden of factually establishing a *prima facie* case of anticipation because Aoyama '246 does not disclose or suggest each and every element of

the presently claimed invention, arranged as in claims 1 and 9. As such, claims 1 and 9 are fully patentable over Aoyama '246 and the rejection should be withdrawn.

With respect to claims 1 and 9, Guerra does not disclose or suggest each and every element of the present claimed invention, arranged as in the present claims. Specifically, with regard to claims 1 and 9, Guerra does not appear to disclose or suggest **depositing a layer of material onto the upper surface so as to form a combined substrate and layer structure having an upper surface profile comprising an adjacent series of structures having a substantially hemi-cylindrical contour**, as presently claimed. In particular, the cited portion of Guerra reads:

The masters for the micro-optic arrays can be fabricated by any one of a number of well-known techniques, including **precision computer-controlled diamond turning, photolithography, multiple-beam laser lithography, laser mastering lathe, or e-beam lithography**. As shown in FIGS. 18, 19, and 20A, a master 201 is fabricated from which an inverse master 203 is formed. Master 201 can be replicated either directly or in a material such as electro-less nickel, for example, to form inverse master 203. Inverse master 203 would be used in a fabrication process such as compression, injection, or sequential injection/compression molding of any of a number of plastics such as polycarbonate, acrylic, and others. Alternatively, inverse master 203 can be used for embossing micro-optics into a polymer web (column 16, line 64 through column 17, line 10 of Guerra, emphasis added).

The cited text of Guerra appears silent regarding **depositing a layer of material onto the upper surface so as to form a combined substrate and layer structure having an upper surface profile comprising an adjacent series of structures having a substantially hemi-cylindrical contour**, as presently claimed.

Since Guerra is silent regarding depositing a layer of material onto the upper surface so as to form a combined substrate and layer structure having an upper surface profile comprising an adjacent series of structures having a substantially hemi-cylindrical contour, as presently claimed, it follows that Guerra does not disclose or suggest forming each and every element of the presently claimed invention, arranged as in claims 1 and 9. Furthermore, the Office Action fails to present any objective evidence or convincing line of reasoning to meet the Office's burden to factually establish that there is no difference between the claimed invention and the reference disclosure, **as viewed by a person of ordinary skill in the field of the invention**. Therefore, the Office Action fails to meet the Office's burden of factually establishing a *prima facie* case of anticipation. As such, claims 1 and 9 are fully patentable over Guerra and the rejection should be withdrawn.

With regard to claim 19, the Office Action fails to address how Aoyama '246 discloses or suggests each and every element of the presently claimed invention, arranged as in claim

19. Specifically, The Office Action fails to allege, let alone show, that Aoyama '246 discloses or suggests either (i) forming one or more convex substantially hemicylindrical structures with a deposition process characterized by substantially uniform growth on a template substrate or (ii) serially replicating the structures to form a stamper having one or more convex substantially hemicylindrical structures, as presently claimed. Therefore, the Office Action fails to meet the Office's burden of factually establishing a *prima facie* case of anticipation by showing that Aoyama '246 discloses or suggests each and every element of the presently claimed invention, arranged as in claim 19. Furthermore, since the Office Action fails to apply the reference to the specific limitations of claim 19, the Office Action does not appear to be complete as required by 37 CFR §1.104. As such, claim 19 is fully patentable over Aoyama '246 and the rejection should be withdrawn.

Claims 2-7, 10-12 and 20 depend, directly or indirectly, from either claim 1, claim 9 or claim 19 which are believed to be allowable. As such, the presently claimed invention is fully patentable over the cited references and the rejections should be withdrawn.

**CLAIM REJECTIONS UNDER 35 U.S.C. §103**

The rejection of claims 11-12 under 35 U.S.C. §103 as being unpatentable over Guerra in view of Saito et al. (U.S. Patent No. 6,090,907; hereinafter Saito) is respectfully traversed and should be withdrawn.

The rejection of claim 20 under 35 U.S.C. §103 as being unpatentable over Aoyama '246 in view of Aoyama et al. (U.S. Patent No. 6,147,732; hereinafter Aoyama '732) is respectfully traversed and should be withdrawn.

Claims 11, 12 and 20 depend, directly or indirectly, from either claim 9 or claim 19 which are believed to be allowable. As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

New claims 24-31 depend, directly or indirectly, from either claim 1, claim 9 or claim 19 which are believed to be allowable. As such, the presently claimed invention is fully patentable over the cited references.

Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative at 586-498-0670 should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge Deposit  
Account No. 12-2252.

Respectfully submitted,

CHRISTOPHER P. MAIORANA, P.C.

A handwritten signature in cursive script, appearing to read "Robert M. Miller", is written over a horizontal line.

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